

PERSPECTIVES ON AMATEUR RADIO RESPONSE IN NORTH CAROLINA

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Greg Hauser

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 - NC SIEC NGO-AUXCOMM
 - NC AUXCOMM Coordinator
 - ARRL NC Section Emergency Coordinator

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Disclaimer

The information in this presentation is based on the personal observations and opinions of the authors and should not be considered as an official communication or statement of policy by the State of North Carolina, or the ARRL, the National Organization of Amateur Radio.

Topics to be discussed

- ▣ Introductory comments
- ▣ NC Division of Emergency Management (NCEM)
- ▣ NC AUXCOMM
- ▣ Training Ham-volunteers for ESF-2 in NC
- ▣ Hurricane Florence, including role of NC AUXCOMM

Before we begin...

Thanks to amateur radio operators and public safety personnel that provided:

- ▣ Service to their communities during the severe weather events of 2018.
- ▣ Public service to your communities by supporting their non-emergency events.
- ▣ And, thanks to MSP/EMHSD for coordinating EMAC, which provided valuable support to NC during the hurricane events!



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NCEM Map of North Carolina

AUXCOMM has 3 definitions

- ▣ Auxiliary Communications (AUXCOMM)
(organization-neutral term)
- ▣ Auxiliary Communications (AUXCOMM)
Training Workshop
(OEC DHS training class for Hams)
- ▣ “AUXCOMM groups”
(NIMS ICS trained Hams)

Background information on amateur radio in NC...

Statistics on the NC Section

- 21,157 licensed Hams in NC (12/18):
 - Novice 201 1 %
 - Technician 9,749 46 %
 - General 5,328 25 %
 - Advanced 1,223 6 %
 - Amateur Extra 4,656 22 %
- 755,430 licensed Hams in US (12/18)
- ARRL members (12/18):
 - North Carolina: 4,382 20.7 %
 - Total (US – Foreign): 148,227 19.6 %
- #6 in Hams, #8 in ARRL members of 71 sections!

Perspectives on amateur radio and emergency communications influenced by:

- ▣ Becoming ARRL NC Section Manager (2014)
- ▣ Building relationships
- ▣ Taking ICS courses
- ▣ Working on my COML Position Task Book
- ▣ Certification, credentialing of NC COMLs
- ▣ Being a specialty-trained veterinarian at NCSU
- ▣ Being a NC Veterinary Response Corps member
- ▣ Future goals

NC Department of Public Safety Emergency Management Division



NORTH CAROLINA DEPARTMENT OF **PUBLIC SAFETY**

- ▣ Mission: improve the quality of life for North Carolinians by reducing crime and enhancing public safety
- ▣ Law Enforcement
- ▣ Adult Corrections
- ▣ Juvenile Justice
- ▣ Emergency Management

NC Division of Emergency Management (NCEM)

- ▣ Mission: Help North Carolinians prepare for, respond to, and recover from disasters and emergencies.
- ▣ Hazardous materials
- ▣ Search and rescue
- ▣ Risk management
- ▣ Nuclear emergency preparedness
- ▣ Homeland security
- ▣ Disaster recovery
- ▣ Emergency communications



NCEM Emergency Communications

- ▣ Emergency alerts to keep the public informed
- ▣ Interoperability between first responders and agencies
- ▣ Key personnel:
 - ▣ Greg Hauser, SWIC
 - ▣ 24-hour Center Manager



NCEM Emergency Communications

Interoperability responsibilities include:

- ▣ Public safety broadband
- ▣ Standard operating procedures
- ▣ Technology
- ▣ Training and exercises
- ▣ Grant programs
- ▣ Tactical communications, inc. NC AUXCOMM
- ▣ Statewide Interoperability Executive Committee

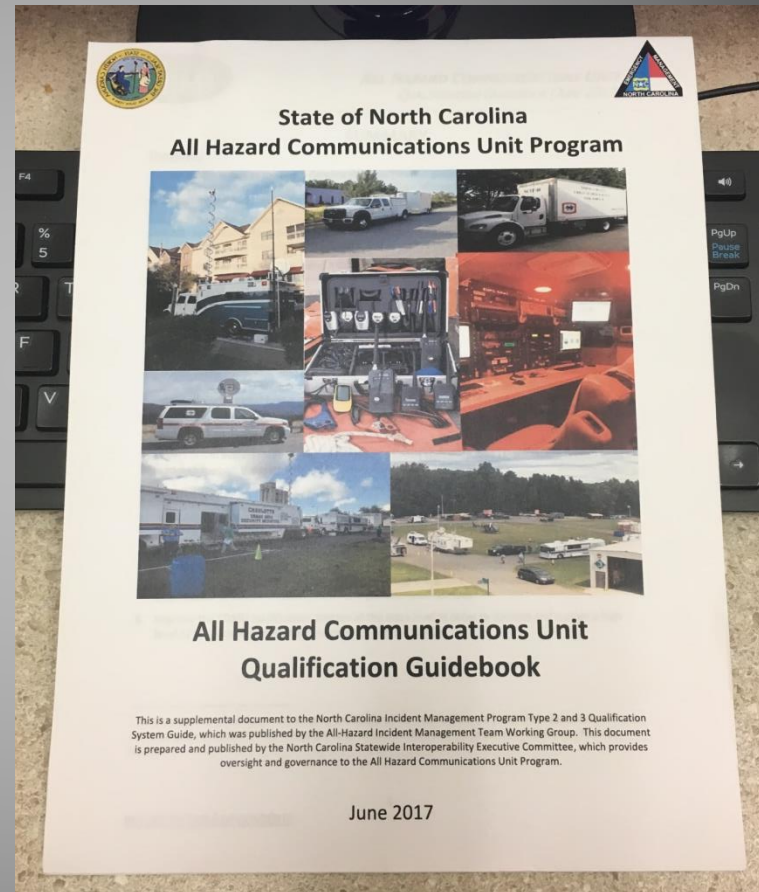
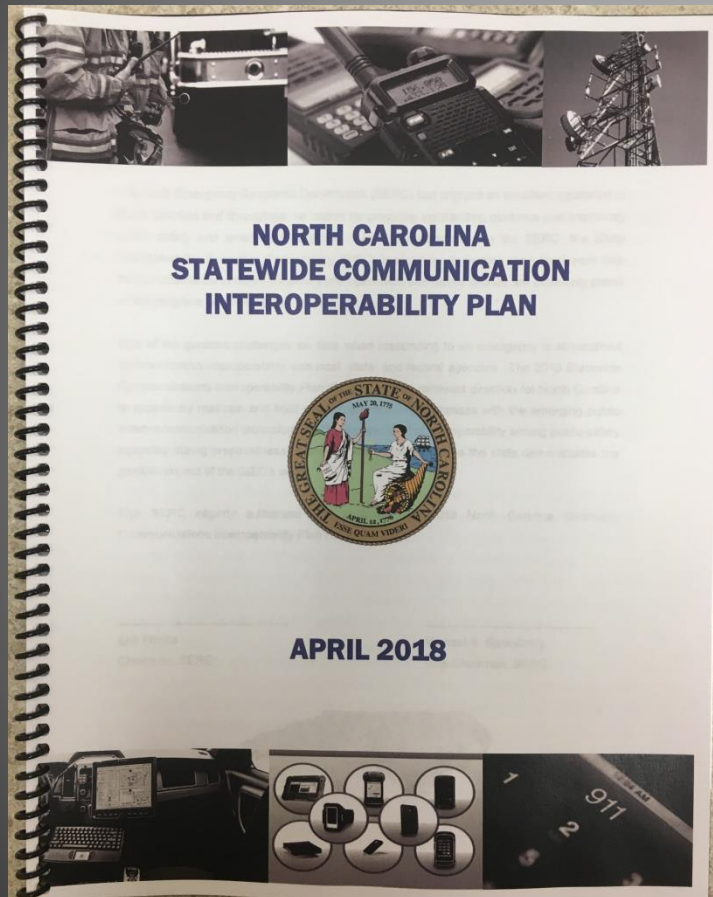


Statewide Interoperability Executive Committee (SIEC)

- ▣ Provides input to state and local agencies
- ▣ Subject Matter Expert on interoperability
- ▣ Point-of-Contact, leadership for all communications projects
- ▣ Two (2) documents developed , updated:
 - ▣ SCIP
 - ▣ COMU Qualifications Guidebook



SIEC documents



NC AUXCOMM

NC AUXCOMM established 2010

- ▣ Tom Brown N4TAB appointed ARRL NC Section Emergency Coordinator
- ▣ Outstanding choice!
- ▣ Why?
 - Understood NIMS ICS protocol
 - Recognized that public safety personnel adopted NIMS ICS protocol – federal and state law!
 - Recognized that Hams needed to be NIMS ICS trained
 - Understood where National Framework for Emergency Response was going
 - Understood its implications for Hams
 - Very few did!

State of North Carolina



MICHAEL F. EASLEY
GOVERNOR

PROCLAMATION FOR ADOPTION OF NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) BY THE GOVERNOR OF THE STATE OF NORTH CAROLINA

WHEREAS, the President in Homeland Security Directive (HSPD)-5, directed the Secretary of the Department of Homeland Security to develop and administer a National Incident Management System (NIMS), which would provide a consistent nationwide approach for Federal, State, local, and tribal governments to work together more effectively and efficiently to prevent, prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity; and

WHEREAS, the collective input and guidance from all Federal, State, local, and tribal homeland security partners has been, and will continue to be, vital to the development, effective implementation, and utilization of a comprehensive NIMS; and

WHEREAS, it is necessary and desirable that all Federal, State, local, and tribal emergency agencies and personnel coordinate their efforts to effectively and efficiently provide the highest levels of incident management; and

WHEREAS, to facilitate the most efficient and effective incident management it is critical that Federal, State, local, and tribal organizations utilize standardized terminology; standardized organizational structures; interoperable communications; consolidated action plans; unified command structures; uniform personnel qualification standards; uniform standards for planning, training, and exercising; comprehensive resource management; and designated incident facilities during emergencies or disasters; and

(Page 1 of 2)

Proclamation for Adoption of NIMS by the Governor of the State of North Carolina

Signed by Governor Easley on May 11, 2005

Growth of NC AUXCOMM

- ▣ Tom N4TAB and colleagues focused on:
 - Developing relationships with NCEM
 - Coaching Ham-volunteers for ESF-2 roles
- ▣ Goal: Acceptance of Hams by public safety community
- ▣ No small feat! Efforts are ongoing...

Growth of NC AUXCOMM, continued

- ▣ ECs and above required to complete introductory (online) ICS courses
- ▣ Soon: All Hams required to complete those courses
- ▣ Presently:
 - >830 Hams have completed introductory ICS courses and are listed in NC AUXCOMM database
 - >89 Hams have completed the AUXCOMM course
 - Many have completed additional NIMS ICS training, including RADO, COMT, COML
 - 10 AHIMT Type III COMLs from NC AUXCOMM

NC AUXCOMM at the local level

- ▣ Capable Hams appointed EC for their community:
 - They are “left alone”
 - Set up public service, emergency response strategies that work for them
 - Hybrid of ARES and NC AUXCOMM “best practices”
 - Recruit local hams and clubs
 - Set up training programs
 - Develop relationships with local public safety personnel
- ▣ The way it should be: All emergencies start locally!

ARES - 2018

Public Service Events

For the 12 months ending SEP 2018 as reported to me (note that some jurisdictions don't regularly report):

- 364 Reported Public Service Events
- 7938 Reported Public Service Hours

Many NC PS Events are conducted under the ICS model

PS Events are often conducted outside the ARES environment, by clubs and other entities.

ARES is DOING FINE in North Carolina!!

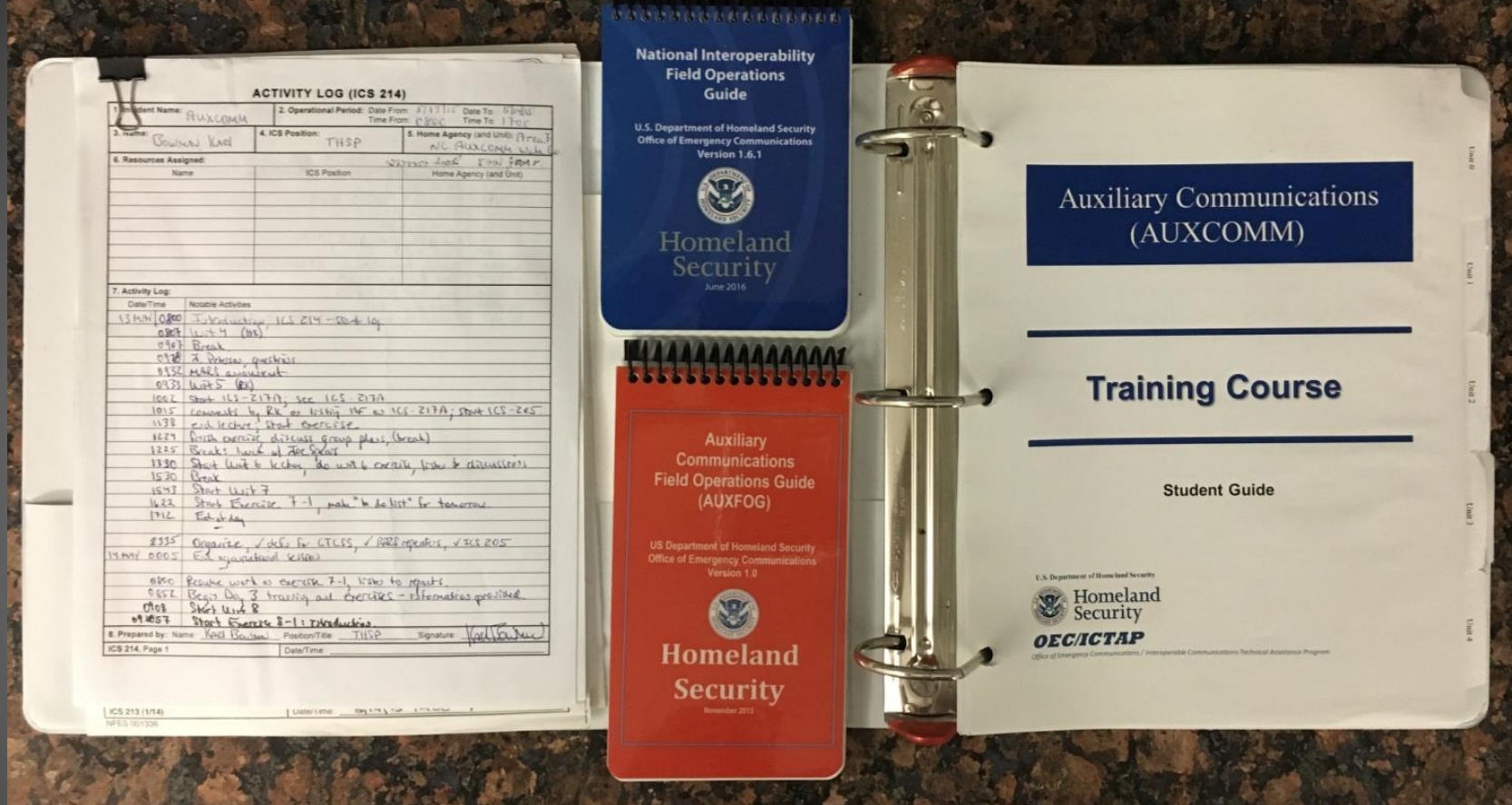
NC AUXCOMM training

- ▣ Training focused on digital communications
- ▣ Western NC: portable “go-kits” are being used to train Hams on Winlink (ham bands, SHARES)
- ▣ NC AUXCOMM Digital Group:
 - Established in eastern NC for similar purposes
 - Now, statewide initiative
 - > 41 individuals participants have Winlink capability via Pactor, Winmor, ARDOP, Packet, VARA, and/or Telnet

Training for COMU personnel

- ▣ Curriculum overseen by Office of Emergency Communications, DHS (now: ECD, CISA, DHS)
- ▣ Public safety personnel need these courses!
- ▣ NC AUXCOMM has access to courses for Hams that need position-specific training.
- ▣ There is an OEC course for Hams:
 - Auxiliary Communications (AUXCOMM) Training Course
 - TRG-AUXCOMM
 - Training on how to participate in ESF-2 Communications
- ▣ Working on more AUXCOMM courses in NC!

AUXCOMM Course (forms, NIFOG, AUXFOG, manual)



NC Disaster Communications School

- ▣ Charlotte Police and Fire Training Academy
 - ▣ 2-4 days of intense training followed by EX
 - ▣ AUXCOMM, RADO, COMT, COML courses
 - ▣ Additional courses likely
 - ▣ Mid-summer, 2019
-
- ▣ First Communications Coordinator (COMC) course in US was taught in Raleigh last month



I was there – here's the
T-shirt to prove it!

Outreach by Greg Hauser, SWIC

- ▣ Meeting with groups of Hams interested in emergency communications
- ▣ His message is focused on:
 - Building relationships between Hams and NCEM
 - Working on shared goals
 - Improved emergency and disaster communications
- ▣ What could be better than that?

HURRICANE FLORENCE

Overview on Hurricane Florence

- ▣ Costliest, most devastating disaster in NC
- ▣ Estimated cost of statewide damage is \$17B
- ▣ FEMA declared 51 counties eligible for Individual or Public Assistance
- ▣ 5,214 people rescued by air, sea, or land
- ▣ 1,067 animals rescued
- ▣ 21,272 people were sheltered on the night of September 15

CONTROLLED UNCLASSIFIED INFORMATION



North Carolina Department of Public Safety
Emergency Management Division

20180907 Hurricane Florence
FEMA-4393-DR-NC // FEMA-3401-EM-NC

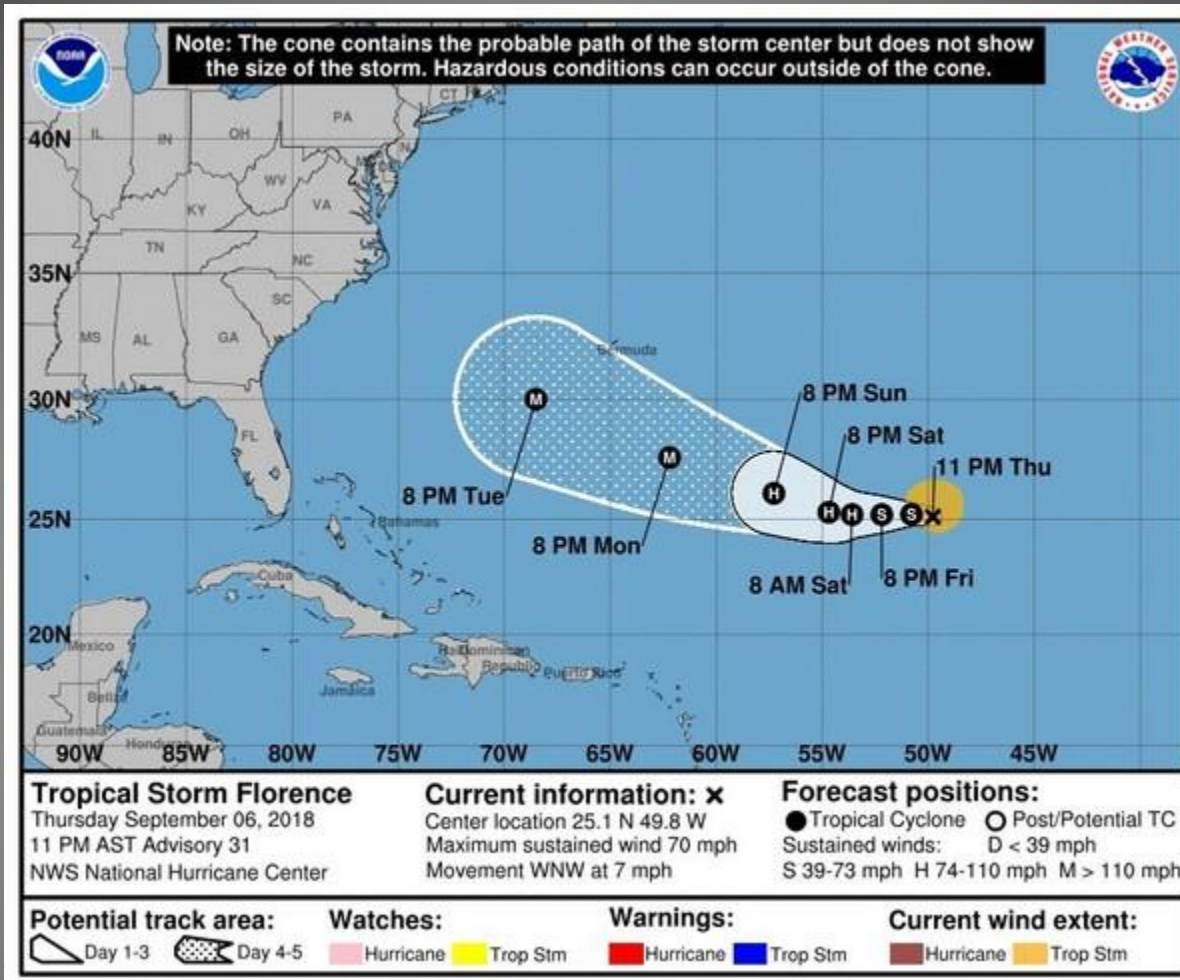


The State of North Carolina
Hurricane Florence
Emergency Support Function (ESF) 2
Communications Unit (COMU) After Action Report



CONTROLLED UNCLASSIFIED INFORMATION

Hurricane Florence
ESF-2/COMU AAR

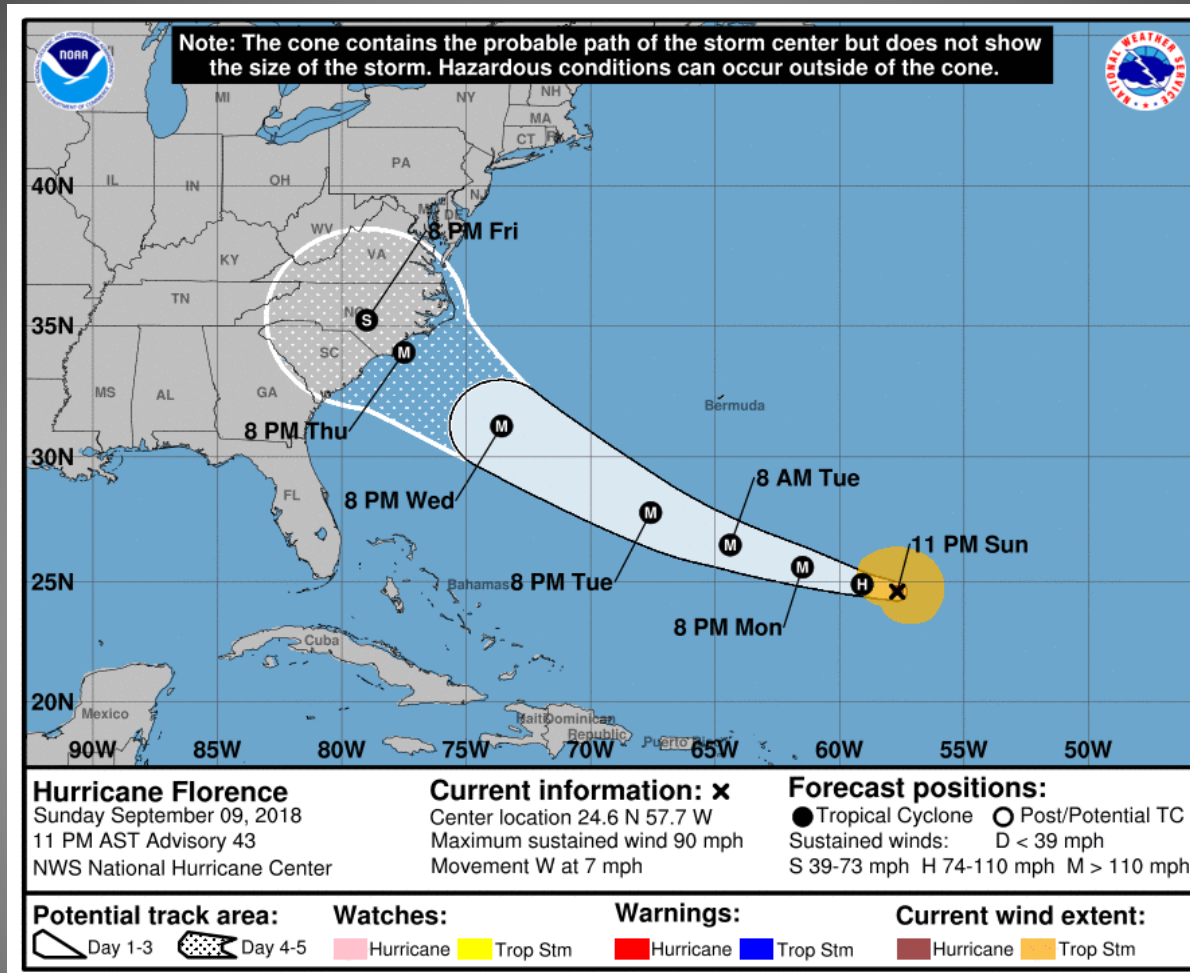


Tropical Storm Florence

Thursday September 6

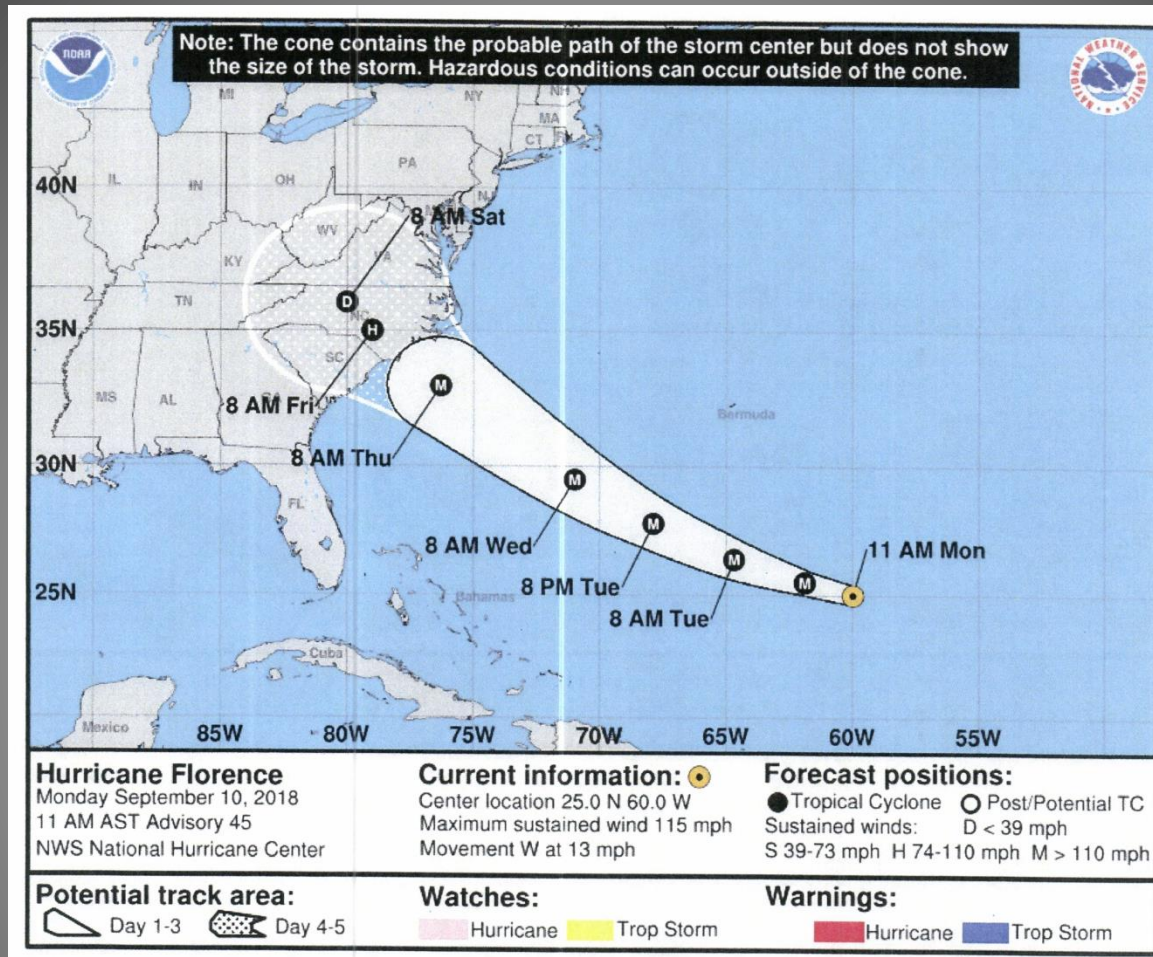
...from the ESF-2/COMU AAR

- ▣ September 6: NCEM meteorologists confident TS Florence would impact eastern NC
- ▣ September 7: Governor Cooper declares State of Emergency
- ▣ Designated 20180907 Hurricane Florence
- ▣ Next 20 days, ESF-2/COMU:
 - Activated plans
 - Deployed personnel and equipment
 - Received resources from regional, federal partners
 - Maintained communications for first responders and North Carolinians



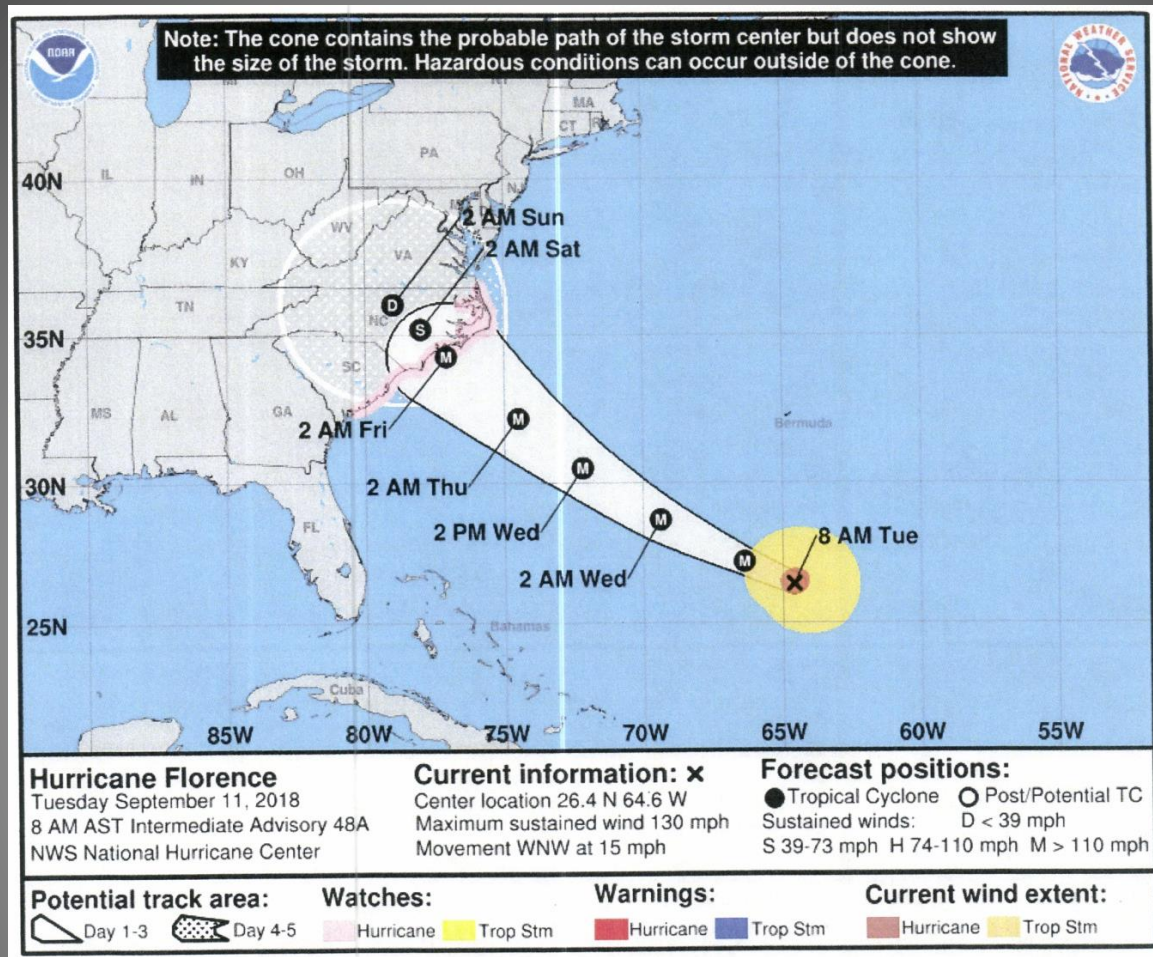
20180907 Hurricane Florence

Sunday September 9



20180907 Hurricane Florence

Monday September 10



20180907 Hurricane Florence

Tuesday September 11

HAZARDS SUMMARY

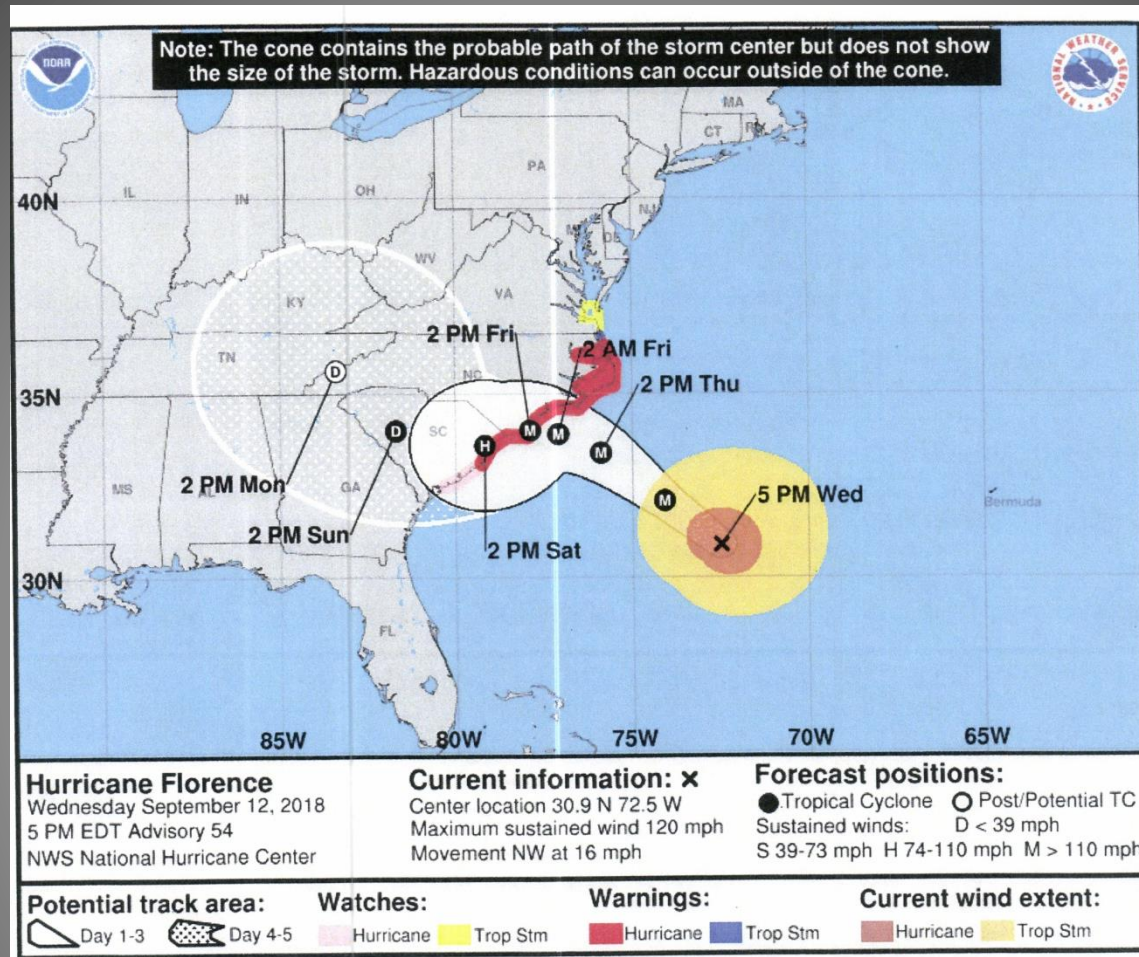
September 13, 2018 – 5AM

HURRICANE FLORENCE

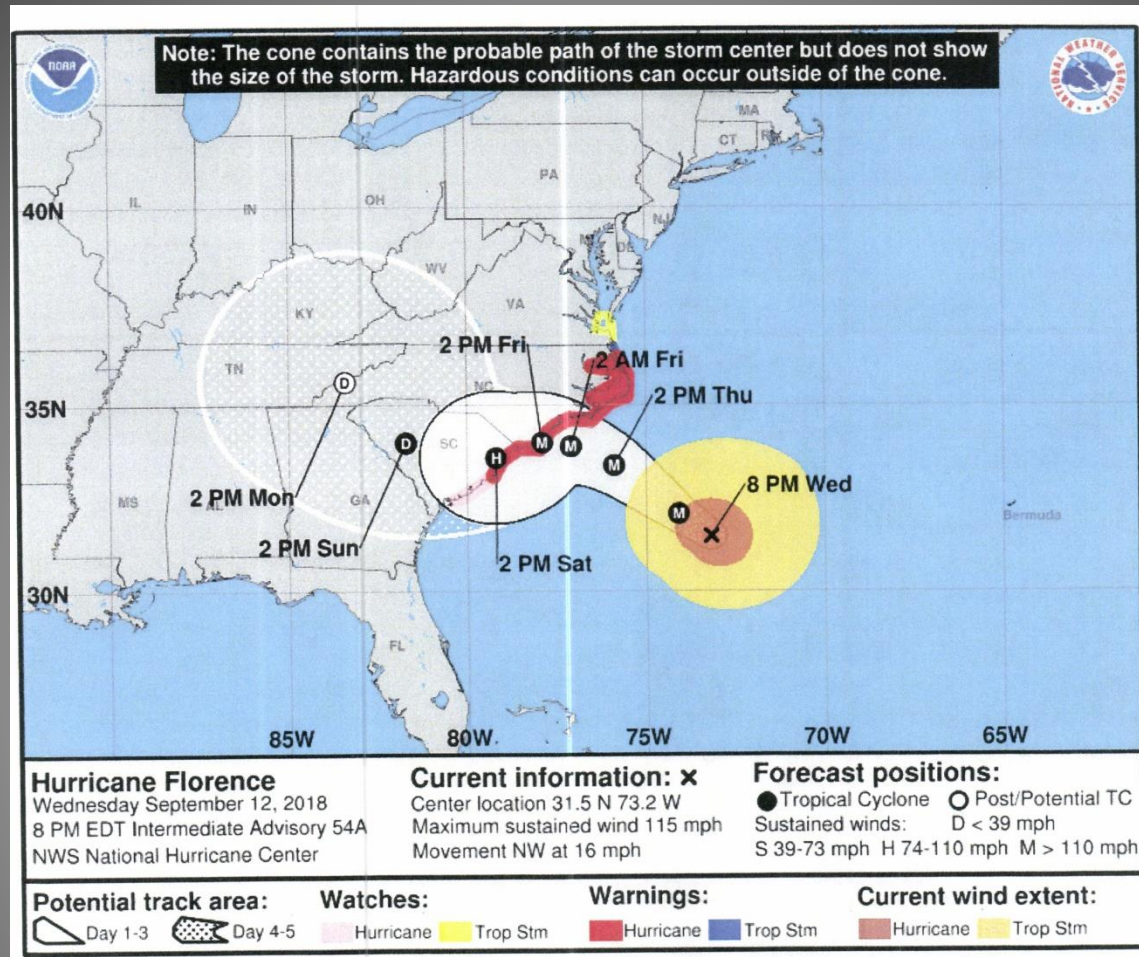


HAZARD	DETAILS	IMPACTS	THREAT		
Storm Surge	S of Cape Fear: 6-9' Cape Fear-Cape Lookout: 9-13' (Neuse, Pamlico, Bay, Pungo Rivers) Cape Lookout-Ocracoke Inlet: 6-9' Ocracoke Inlet-Salvo: 4-6' N of Salvo: 2-4'	Very dangerous inundation amounts are expected along the NC coast Thu-Sat.	Extreme		
Inland Flooding	Coastal NC: 20-30" (Isolated 40") Central, Western, NE NC: 6-12" (Isolated 24")	Sig. threat to life and property; impassable roads; road wash-outs. Heaviest rain across E NC Thurs – Sat night and across W NC Sat –Mon night. Longer-term river flooding likely, and mountain landslides possible.	Extreme		
Damaging Winds	Hurricane-Force winds are likely near the coast Tropical Storm-Force winds possible across much of state	Significant downed trees and widespread/prolonged power outages across the state; significant structure damage possible as Florence near the coast	Extreme		
Tornadoes	A few tornadoes are possible Thu and Fri, across eastern NC. Tornadoes in tropical systems are typically short-lived and weak, but offer very little lead time.		Moderate		
Marine & Coastal	Life-threatening surf and rip currents will continue for much of the week.		Extreme		
Threat Levels:	None	Low	Moderate	High	Extreme

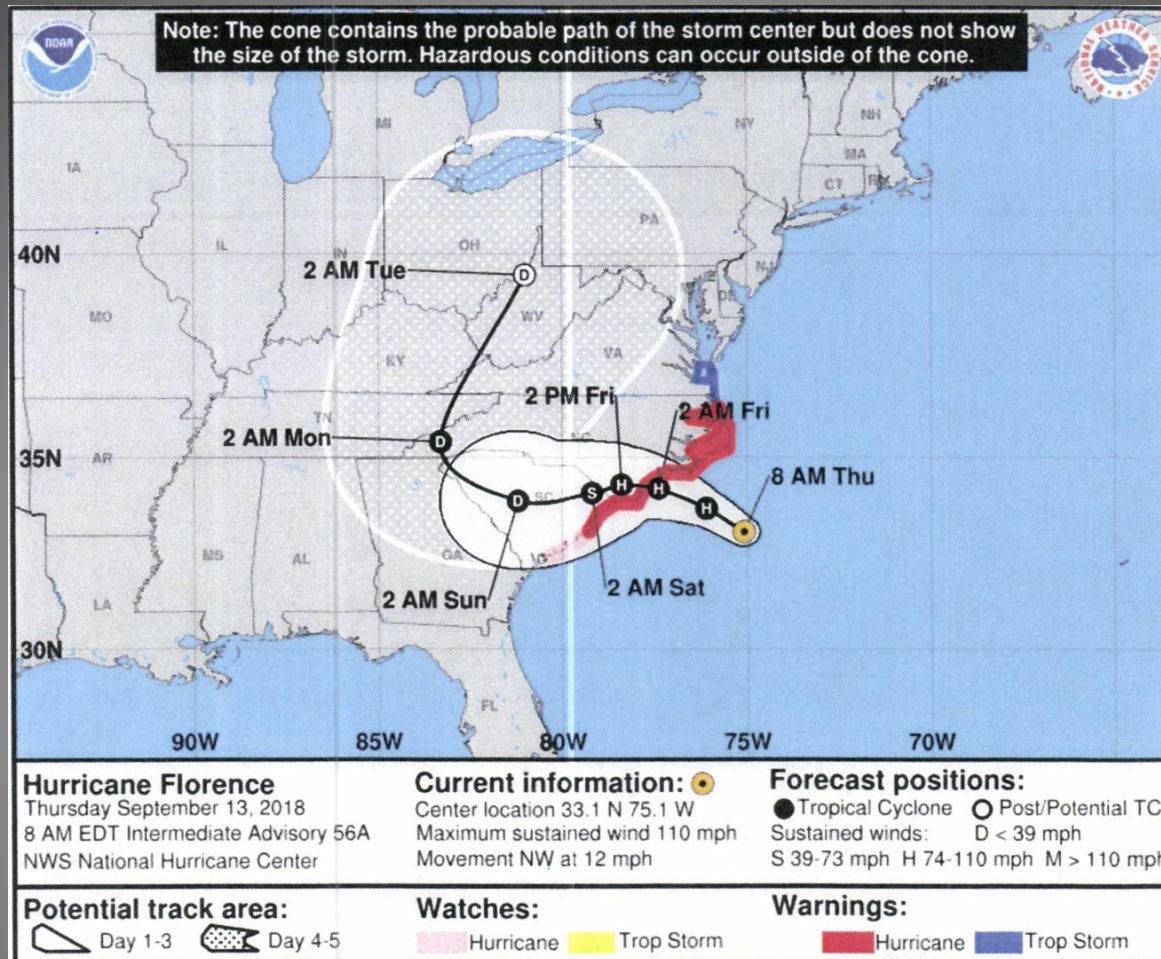
20180907 Hurricane Florence
September 11 5AM



20180907 Hurricane Florence
 Wednesday September 12 5PM

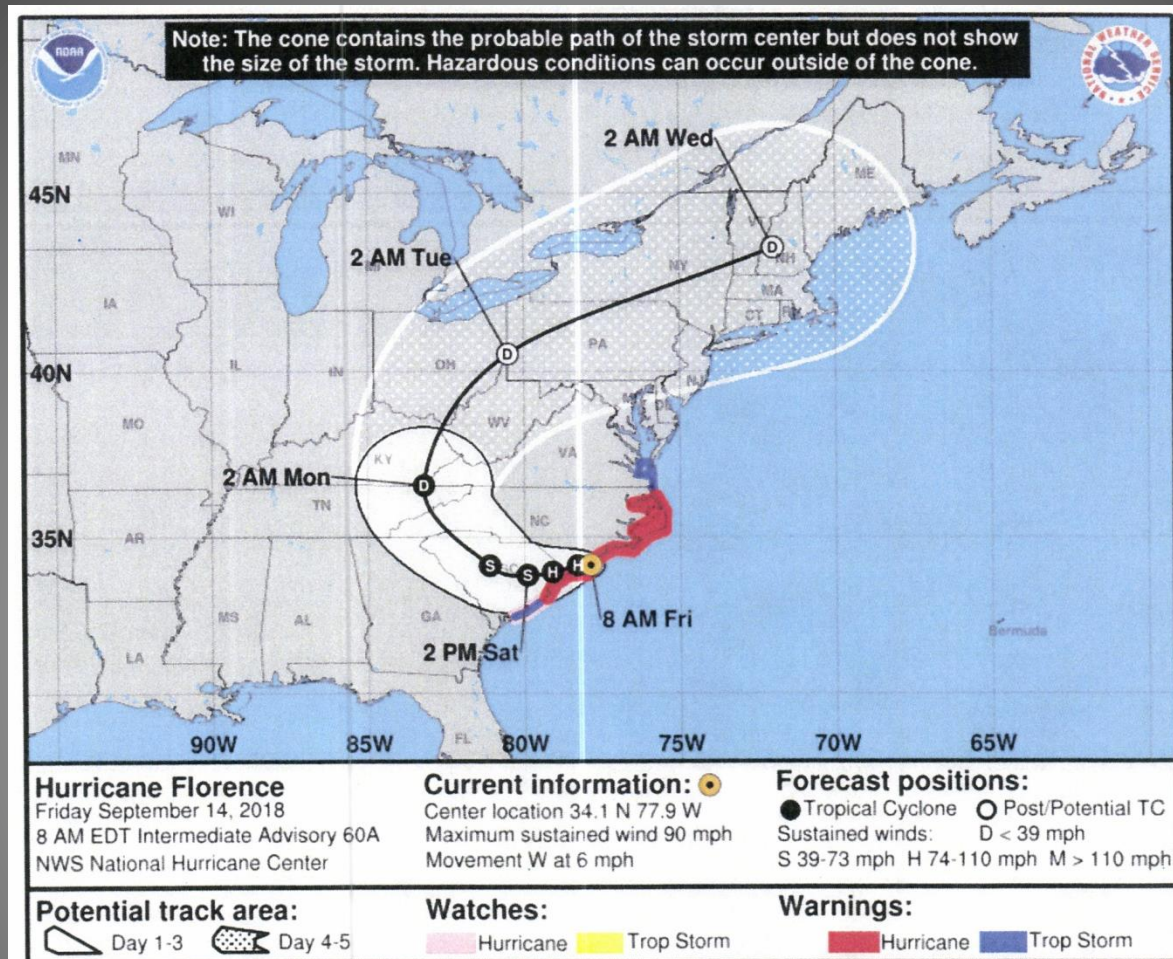


20180907 Hurricane Florence
 Wednesday September 12 8PM



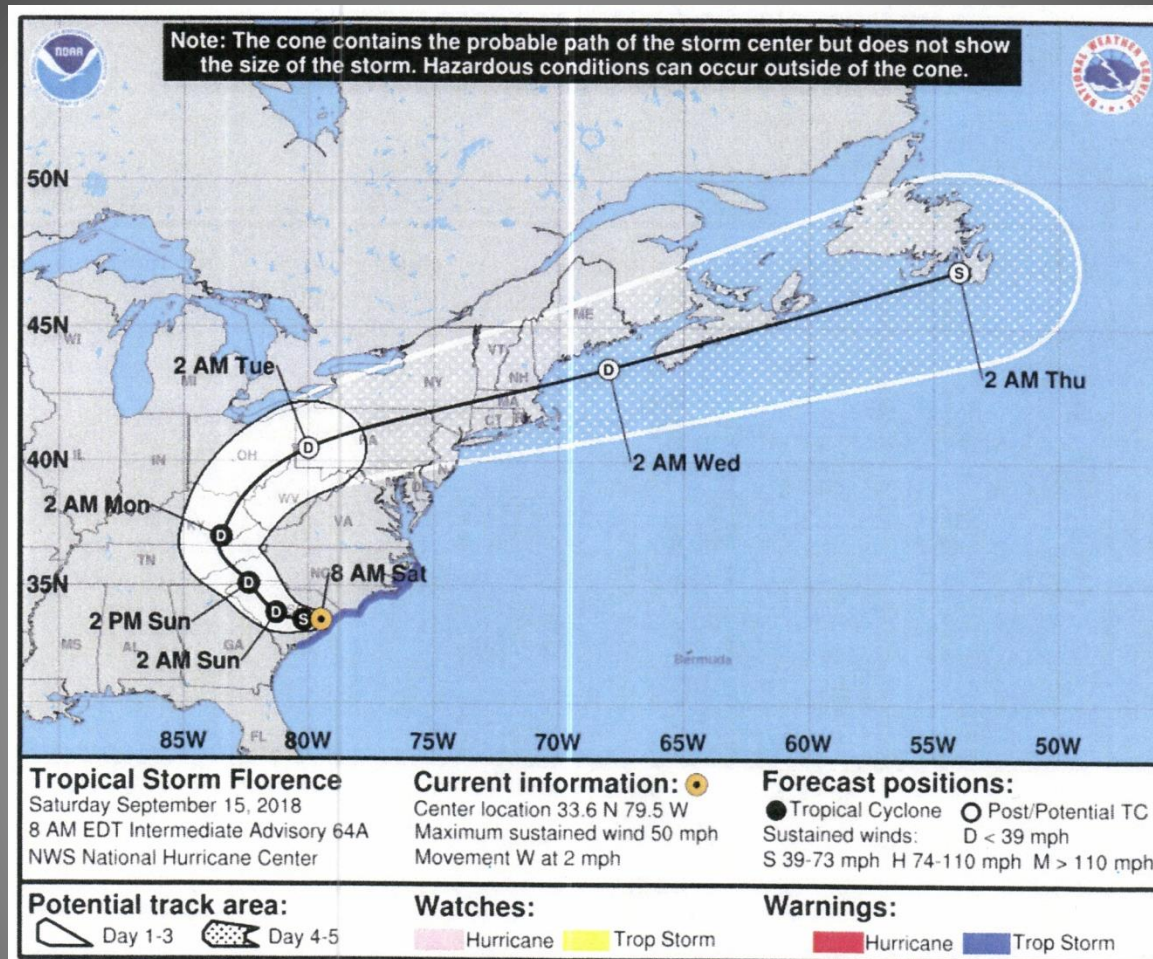
20180907 Hurricane Florence

Thursday September 13



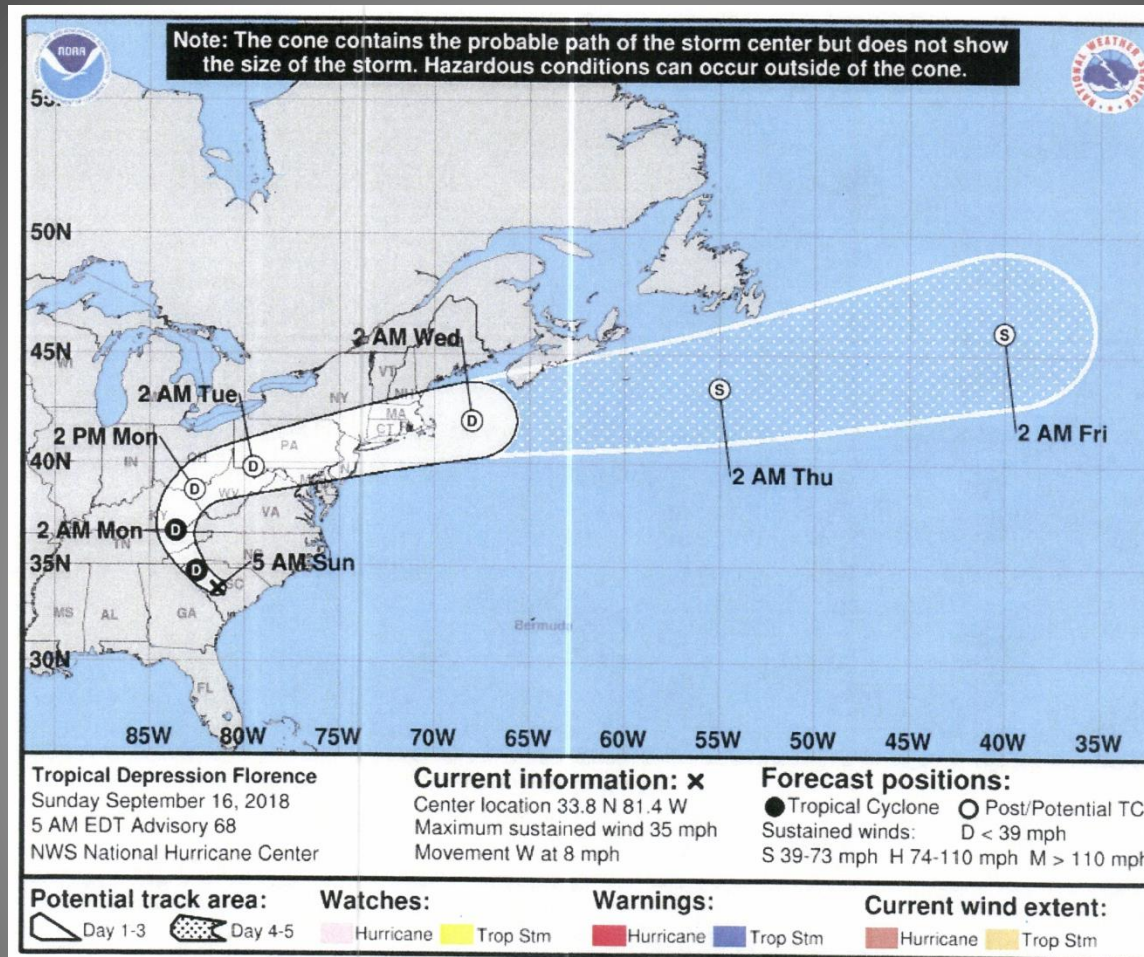
20180907 Hurricane Florence

Friday September 14



20180907 Hurricane Florence

Saturday September 15



20180907 Hurricane Florence

Sunday September 16

Key ESF-2 successes

- ▣ Integration of PSAPs into SERT operations
- ▣ VIPER network performance (largest in US)
- ▣ Mobilization, effectiveness of COMU at 4 locations
 - State EOC
 - Regional Coordination Centers (East, Central, West)
- ▣ Integration of commercial carriers into ESF-2 operations
- ▣ Performance of NC AUXCOMM program
- ▣ Improvement of NC Air-to-Ground communication plan
- ▣ Integration of federal partners into ESF-2 operations

Additional ESF-2 statistics

- ▣ ESF-2 missions: 184
- ▣ ESF-2/COMU personnel: 88
- ▣ Cache radios issued: 850
- ▣ 911 calls statewide: 225,923

- ▣ ESF-2 EMAC resources:
 - Type 1 SOW from AL, TN
 - Type 1 TERT teams from FL (2), GA, TN

...from the ESF-2/COMU AAR

- ▣ NC AUXCOMM resources pre-deployed at RCCs and local EOCs that made requests
- ▣ NC AUXCOMM continues to be first COMU resource mobilized for widespread natural disasters
- ▣ >40 NC AUXCOMM personnel deployed at SEOC, RCCs, local EOCs, or at home
- ▣ Number of non-NC AUXCOMM monitoring and ready-to-assist is not known

Comments on Hurricane Florence

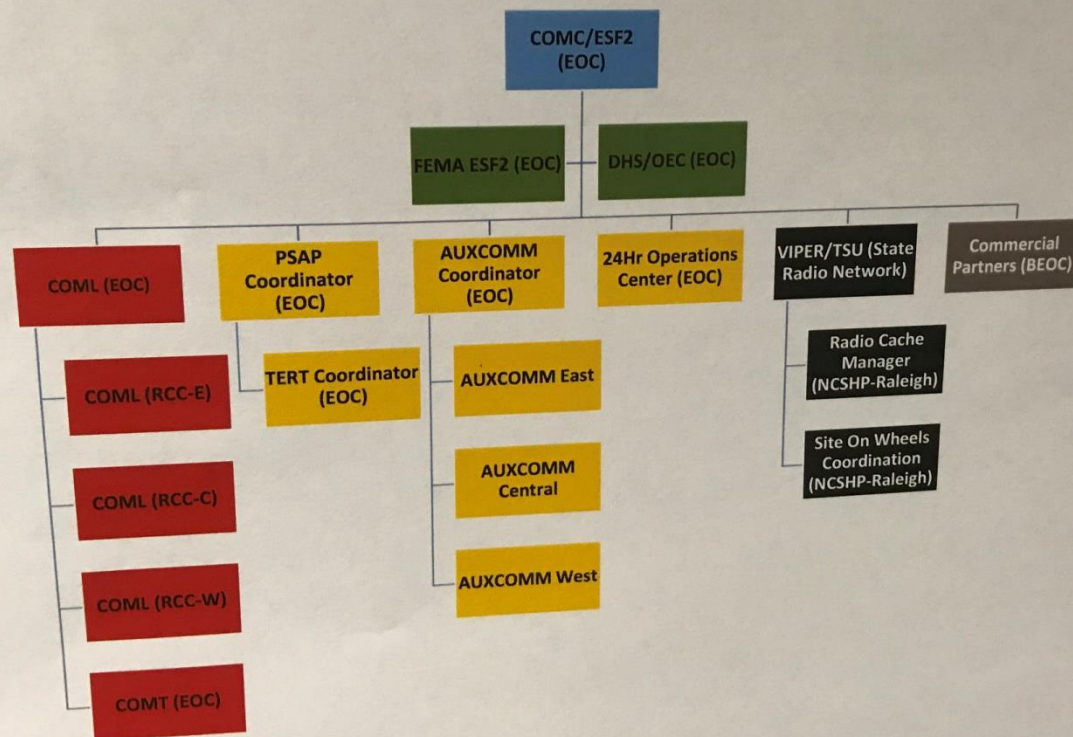
- ▣ My thoughts and prayers to individuals, families, and communities
- ▣ Many individuals and organizations contributed to disaster response
- ▣ Emergency management efforts are ongoing
- ▣ NC AUXCOMM from western NC deployed “Down East”
- ▣ Extensive response by individual Hams and clubs to support their communities



20180907 Hurricane Florence
NC AUXCOMM



Hurricane Florence Communications Unit – North Carolina



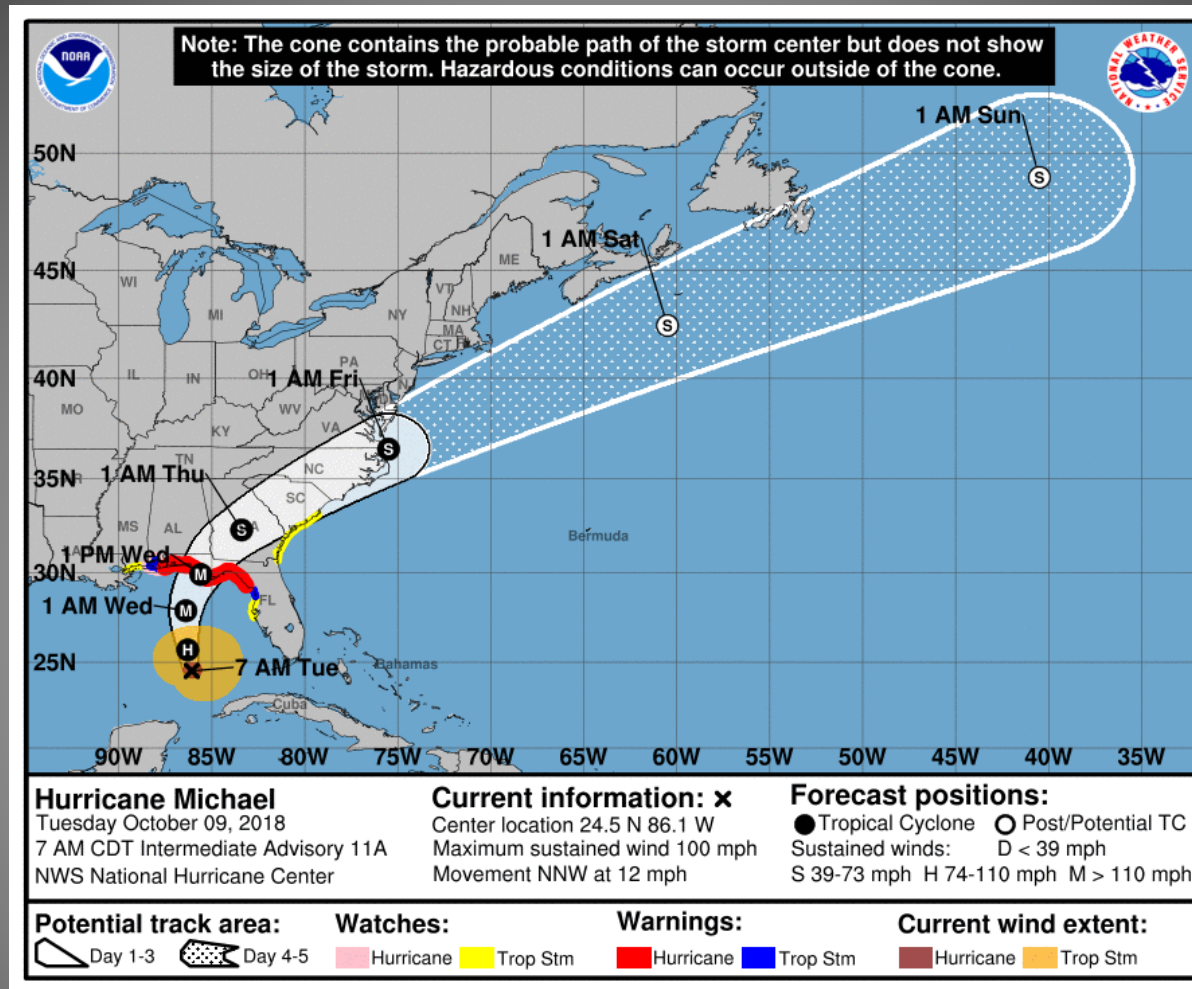
20180907 Hurricane Florence
Communications Unit



20180907 Hurricane Florence



20180907 Hurricane Florence



20181010 Hurricane Michael

This concludes my presentation.
Are there any questions?

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